

REMARKS

Upon careful and complete consideration of the Office Action dated May 14, 2008, applicants have amended the claims which, when considered in conjunction with the comments herein below, are deemed to place the present application into condition for allowance. Favorable reconsideration of this application, as amended, is respectfully solicited.

The Office Action objected to the specification based on the spelling of the word "benzene" as "bensene". The appropriate corrections have been made to pages 6, 8, 11 and 14 of the subject specification. Accordingly, the objection is respectfully requested to be withdrawn.

The Office Action also objected to the claims for several reasons. Specifically, claims 11, 31 and 50 were objected to for the same reason as the specification objection. These claims have been corrected in the same manner as the specification. As originally written, claim 39 depended on itself. Claim 39 has been amended to depend from claim 38. Claims 5-20, 25-38 and 44-60 were objected to as being in improper form as a multiple dependent claim cannot depend on another multiple dependent claim. Claims 5-20 and 44-60 have been amended. Claims 25-38 have been canceled (actually claims 21-39 have been canceled) as the Office Action deemed these claims as essentially duplicates of claims 1-20. Based on the amendments referred to above, the objections made to the claims are respectfully requested to be withdrawn.

The Office Action next rejected claims 61-63 under 35 U.S.C. §112, second paragraph, as being indefinite. These claims have been canceled as well, making the rejection moot.

Turning to the more substantive rejections, the Office Action rejected claims 1-2, 5, 8, 9, 12-22, 25, 28-29, 32-41, 44, 47-48 and 51-60 under 35 U.S.C. §102 (b) as being anticipated by International Publication No. WO 00/40669 (hereinafter referred to as "de Bruyn"). In making its rejection of claims 3-4, 23-24 and 42-43 under 35 U.S.C. §103 (a) as being unpatentable over

de Bruyn and further in view of U.S. Patent No. 4,886,854 to Markessini et al. (hereinafter referred to as "Markessini et al."), the Office Action acknowledged the fact that de Bruyn did not teach including a sugar in the binder composition. Claims 1 and 40 have been amended to include the sugar component, thus making these claims, and the claims dependent thereon, novel over de Bruyn. Accordingly, based on the insertion of the claimed subject matter of claims 3 and 42 into independent claims 1 and 40, the rejection of these claims based on de Bruyn under 35 U.S.C. §102(b) is respectfully requested to be withdrawn.

The applicants have discovered that the addition of sugar to the binder composition has provided the distinct advantage of greatly advancing the binding properties of the binder composition. This unexpected result, which could not have been predicted by a person skilled in the art based on the cited art and common general knowledge.

The Office Action cited Markessini et al. as teaching combining glucose, fructose, sucrose or a mixture thereof with a urea and formaldehyde to make a binding composition that is safer for the environment and for workers than resin. The Office Action then concluded that it would have therefore been obvious for the ordinary artisan to add glucose, fructose, sucrose or a mixture thereof to the urea-formaldehyde binder as taught by de Bruyn. Applicants respectfully disagree with this conclusion.

Markessini et al. are specifically concerned with bonding lignocellulosic products and the substitution of amino and phenolic resins in the bonding composition. The substitute for resin as taught by Markessini et al. "may be used in all types of products where amino and phenolic resins are used for bonding lignocellulosic products, whether these are wood particles for particleboard production using a flat press, or a calendar or wood veneers such as in plywood production." (see Markessini et al., column 2, lines 63-68) The present invention, on the other

hand, is directed to the treatment of particulate material and is completely unrelated to the bonding composition of Markessini et al.

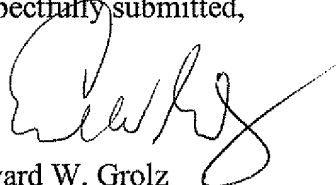
The purpose of using the bonding composition as taught by Markessini et al. is to allow for the use of lower amounts of resin solids while at the same time reducing the free formaldehyde of the resulting board. There is also no teaching or suggestion by Markessini et al. as to the purpose of the sugar in its composition or exactly what leads to a more safe substitute. There is no teaching or suggestion by Markessini et al. that its bonding composition would be useful in any other applications other than for bonding lignocellulosic products. That is, the skilled artisan would not be looking to Markessini et al. for any guidance when dealing with the subject matter of the present invention, i.e, binding particulate material (see page 6 of the subject specification, lines 16-20). The present invention is not concerned with the substitution of any amino and phenolic resins for bonding water penetrable cellulosic particles as is Markessini et al. The fact that the bonding composition of Markessini et al. teaches a sugar/urea-formaldehyde binder that is a safe and effective substitute for resin in the bonding of water penetrable cellulosic particles would not suggest or lead the skilled artisan to using the same bonding composition for a totally different purpose, i.e. the binding of particulate material where there is no concern for the substitution or lowering of the use of amino and phenolic resins.

Consequently, the rejection of the claims based on the combined teachings of de Bruyn and Markessini et al. is respectfully requested to be withdrawn.

The remaining rejections of the Office Action involving U.S. Patent No. 5,523,049 to Terpstra and U.S. Patent No. 4,376,088 to Prather do not overcome the shortcomings of the combined teachings of de Bruyn and Markessini et al. as discussed above. Accordingly, it is respectfully requested that these rejections be withdrawn as well.

Finally, in view of the foregoing comments and amendments submitted in response to the Office Action, which are deemed to be fully in compliance with and responsive to the Examiner's requirements, the early and favorable reconsideration and allowance of the application is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Edward W. Grolz', written over the typed name.

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